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CENTRAL FAX CENTER

AMENDMENTS

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (currently amended) A method for collecting data with a camera at a remote location, selecting and transmitting data to selected stations on a network, the transmitted data including at least one of a compressed digital still image and compressed digital motion video, the method comprising the steps of:

collecting data based on [a] an event occurring at the remote location, [wherein] the collected data [is] being related to a scene, the collected data including an image signal, the collected data defining an original scene, the data being collected on a preselected basis;

at the remote location generating from the collected data motion histogram values for regions of the scene, the motion histogram values being suitable for graphically depicting magnitude of sensed scene changes over time;

generating a prioritized signal indicating a priority, the prioritized signal including time and location of an event, the prioritized signal being generated by comparing at the camera a subsequent [scenes] scene to the original scene, the prioritized signal being generated in response to a modification of the original scene;

if the prioritized signal meets a threshold value indicating modification of the original original scene, transmitting the prioritized signal to a receiving station located on a network, the transmitted prioritized signal including an image component, the [transmitted prioritized signal] image component including [the original scene and only those] the subsequent [scenes different from the original] scene; and

managing the transmitted prioritized signal at the receiving station.

2. (canceled).

3. (canceled).

4. (canceled).

5. (canceled).

6. (currently amended) The method of claim 5, wherein the data is in the form of digital pixels and wherein the comparing step comprises identifying change information, the change information including only those pixels altered from the original scene.

7. (original) The method of claim 6, further comprising the step of generating a change histogram from the change information created in the comparing step.

8. (original) The method of claim 4, further comprising the step of masking specific regions of the scene in order to ignore changes in said region.

9. (original) The method of claim 4, further including the step of tagging each transmitted image with unique identifying data.

10. (original) The method of claim 9, wherein the tagging step is performed at the remote location.

11. (original) The method of claim 9, wherein the identifying data includes the date and time of the data defining a scene.

12. (original) The method of claim 9, further wherein the identifying data further includes the duration of the data defining a scene.

13. (original) The method of claim 11, further including a plurality of cameras and wherein the identifying data further includes a camera identifier.

14. (original) The method of claim 4, further including a visual monitor at the remote location, wherein transmitted data [may] can be selectively displayed at the monitor.

15. (original) The method of claim 14, wherein transmitted data is displayed at the monitor in near real-time.

16. (original) The method of claim 14, further including the step of tagging each transmitted image with unique identifying data.

17. (original) The method of claim 16, wherein the unique identifying data is displayed with the displayed data.

18. (original) The method of claim 17, wherein the monitor further includes a map of the scene.

19. (original) The method of claim 18, further including a plurality of cameras and wherein an icon representing each camera is provided on the map.

20. (original) The method of claim 19, further including an indicator that is activated when the data from a specific camera is displayed on the monitor and deactivated at other times.

21. (original) The method of claim 4, further comprising the step of storing the transmitted data at the remote location.

22. (original) The method of claim 21, further including the step of retrieving the data from the stored data on command.

23. (original) The method of claim 22, further including the step of tagging each transmitted image with unique identifying data.

24. (original) The method of claim 23, wherein the tagging step is performed at the remote location.

25. (original) The method of claim 23, wherein the identifying data includes the date and time of the data defining a scene.

26. (original) The method of claim 25, further wherein the identifying data further includes the duration of the data defining a scene.

27. (original) The method of claim 25, further including a plurality of cameras and wherein the identifying data further includes a camera identifier.

28. (original) The method of claim 1, wherein the managing step comprises generating an alarm at the receiving station.

29. (original) The method of claim 1, wherein the managing step comprises displaying the transmitted signal at the receiving station.

30. (original) The method of claim 1, wherein the managing step comprises generating an alarm and displaying the transmitted signal at the receiving station.

31. (original) The method of claim 1, wherein the managing step comprises storing the transmitted signal at the receiving station.

32. (currently amended) A method for collecting event data available at a remote location, selecting and transmitting event data from the remote location to selected stations on a network, the transmitted event data including at least one of a compressed digital still image and compressed digital motion video, the method comprising the steps of:

collecting event data at the remote location related to a scene in which motion histogram values suitable for graphically depicting magnitude of sensed scene changes over time are generated for separate regions of the scene;

transmitting original event data to the remote location, the original event data being defined as baseline data;

comparing subsequent event data to the baseline data;

transmitting from the remote location to selected stations on the network a transmitted event data signal, the transmitted event data signal including only subsequent event data differing from the baseline data;

tagging each transmitted event data signal with unique identifying data; and

storing the transmitted event data at the remote location.

33. (original) The method of claim 32, further including the step of retrieving the event data from the stored event data on command.

34. (original) The method of claim 32, wherein the tagging step is performed at the remote location.

35. (original) The method of claim 32, wherein the identifying data includes the date and time of the corresponding scene data.

36. (original) The method of claim 35, further wherein the identifying data further includes the duration of the corresponding event data.

37. (original) The method of claim 32, further including a plurality of cameras and wherein the identifying data further includes a camera identifier.

38. (original) The method of claim 1, further including a central management system and wherein the prioritizing step occurs after the collected data is sent to the management system.

39. (original) The method of claim 38, further including retransmission of the data based on the prioritization of the data at the central management system.

40. (original) The method of claim 39, wherein the retransmission step includes transmitting the data to selected recipients based on the prioritization step.

41. (original) The method of claim 39, wherein the retransmission step includes generating a visual icon on a graphic display at a remote location.

42. (original) The method of claim 39, wherein the retransmission step includes generating a voice signal at selected remote locations.

43. (original) The method of claim 39, wherein the retransmission step includes a substep of defining a recipient hierarchy and retransmitting in sequence in accordance with the hierarchy.

44. (original) The method of claim 43, further including the step providing a positive response signal to the central management system for indicating that a retransmitted signal has been received by a selected recipient.

45. (original) The method of claim 44, further including the step of password encoding recipient.

46. (original) The method of claim 44, further including the step of managing the system through the central management system by a selected recipient after a retransmitted message has been received.

47. (original) The method of claim 1, wherein the prioritizing step occurs prior to the transmitting step.

48. (original) The method of claim 1, wherein the prioritizing step occurs at a first hierarchy prior to the transmitting step and at a second hierarchy after the transmitting step.
49. (original) The method of claim 1, further including the step of generating a notification signal in response to a transmitted prioritized signal.
50. (original) The method of claim 49, wherein the notification signal is transmitted to selected recipients on a network.
51. (original) The method of claim 50, wherein the notification signal is repeatedly transmitted until a selected recipient responds to the notification signal.
52. (original) The method of claim 50, further including the step of assigning a prioritization hierarchy to a plurality of recipients and wherein the notification signal is transmitted to recipients based on this hierarchy.
53. (original) The method of claim 49, wherein the notification signal is transmitted to monitoring stations on a network.
54. (original) The method of claim 49, wherein the notification signal is transmitted via telephonic means.
55. (original) The method of claim 49, wherein the notification signal is transmitted via email.
56. (original) The method of claim 55, wherein the e-mail further includes an attachment including additional, event specific data.
57. (original) The method of claim 56, wherein the attachments is image data.

58. (original) The method of claim 50, wherein the receipt and response to the notification signal is password protected.

59. (original) The method of claim 3, including the steps of capturing an image of personnel attempting to gain access through an access control system and logging all successful entry attempts and all unsuccessful attempts.

60. (original) The method of claim 21, including the step of searching the database by any combination of specific individual, class of individual, by successful accesses, by unsuccessful accesses, by specific portal of entry with qualifiers of time, day, and location.

61. (original) The method of claim 60 including the step of providing an image of those personnel attempting access to a facility along with the results of a search of the database by any of a specific individual, class of individual, by successful accesses, by unsuccessful accesses, by specific portal of entry with qualifiers of time, day, location.

62. (original) The method of claim 1, wherein the collecting step includes collecting event data at a remote location, identifying and prioritizing the data, and the transmitting step includes selectively transmitting the data to selective monitoring stations on a network based on an event prioritization hierarchy.

63. (original) The method of claim 62, including the step of comparing data generated at a remote location to determine the occurrence of an event and the transmitting step further includes the data to a selective monitoring station indicating the occurrence of an event.

64. (original) The method of claim 1, wherein the collecting step includes collecting video and still images of a scene and wherein the transmitting step includes transmitting any change in the scene in near real-time to a remote location.

65. (original) The method of claim 1, further including the step of compressing the data prior to the transmitting step.

66. (original) The method of claim 65, wherein the compressing step further includes minimizing the amount of data to be transmitted without any loss of critical change data.

67. (original) The method of claim 1, further including the steps of defining the data in blocks of data and tagging each block of data with a unique identifier for enhancing storage, search and retrieval.

68. (original) The method of claim 6, including the step of quantifying the amount of change between scenes.

69. (original) The method of claim 6, including the steps of quantifying the amount of change between scenes and reporting such as an indication of level of motion.

70. (original) The method of claim 6, including the step of ignoring anticipated or minimal changes in a scene by applying pre-selected criteria.

71. (original) The method of claim 6, including the step of blocking of specified regions of a scene to further enhance the monitoring, transmission and definition of the changes in the scene of a frame-to-frame basis.

72. (original) The method of claim 1, wherein the managing step further includes the step of correlating correlate motion between two or more cameras to determine if a motion detection event should be identified in order to eliminate false alarms.

73. (original) The method of claim 1, further including the step of controlling all functions and steps from a single interactive monitor screen.

74. (original) The method of claim 73, including the step of providing simultaneous access for two or more monitor screens each allowing functions of the system to be controlled by that interactive monitor.

75. (original) The method of claim 6, including the step of detecting the appearance or disappearance of an object.

76. (original) The method of claim 49, wherein the notification step includes detection of the presence of unauthorized events in a monitored zone and the transmitting step includes transmitting the detection to selected remote stations on a network on a near real-time basis.

77. (original) The method of claim 49, wherein the notification step includes routing detected events, whereby the location of the incident may be visually located on a map at the remote station.

78. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data;

capturing a change in the image data;

calculating a difference between the image data and the change in the image data;

generating a comparison histogram, based on the difference, indicating a degree of the difference; and

determining an appropriate response based on the degree of the difference.

79. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data;

capturing a change in the image data;

calculating a difference between the image data and the change in the image data; if the difference is above a threshold, generating a comparison histogram, based on the difference, the histogram indicating a degree of the difference; and

determining an appropriate response based on the degree of the difference.

80. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data at a plurality of positions from a plurality of cameras, capturing a change in the image data from the plurality of cameras; if the change is above a threshold from the plurality of positions, correlating the change from the plurality of cameras; and calculating a difference between the image data and the correlated change in the image data.

81. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data at a plurality of positions from a plurality of cameras; capturing a change in the image data from the plurality of cameras; if the change is above a threshold from the plurality of positions, correlating the change from the plurality of cameras; calculating a difference between the image data and the correlated change in the image data; generating a comparison histogram, based on the difference, the histogram indicating a degree of the difference; and determining an appropriate response based on the degree of the difference.

82. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data; capturing a change in the image data; calculating a luminance difference between the image data and the change in the image data; determining a degree of the difference based on differences between pixels associated with the change; and determining an appropriate response based on the degree of the difference.

83. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data; masking a portion of the image data; capturing a change in the non-masked portion of the image data;

calculating a difference between the image data and the change in the non-masked portion of the image data; and

generating a comparison histogram, based on the difference, indicating a degree of the difference.

84. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data;

masking a portion of the image data;

enlarging the masked portion;

capturing a change in the non-enlarged masked portion of the image data, calculating a difference between the image data and the change in the non-masked portion of the image data; and

generating a comparison histogram, based on the difference, indicating a degree of the difference.

85. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data;

automatically masking a portion of the image data where an event consistently occurs, enlarging the masked portion,

capturing a change in the non-enlarged masked portion of the image data; calculating a difference between the image data and the change in the non-masked portion of the image data, and

generating a comparison histogram, based on the difference, indicating a degree of the difference.

86. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing image data,

masking a portion of the image data,

capturing a change in the masked portion of the image data;  
calculating a difference between the image data and the change in the masked portion of the image data; and  
generating an alarm based on the difference.

87. (withdrawn) A method for determining a response due to a change in image data, the method comprising:

capturing a prior image scene;  
capturing a current image scene,  
calculating a difference between the scenes;  
producing a difference scene based on the calculated difference;  
creating a statistical summary of the difference scene,  
summing value changes of the difference scene statistics; and  
if the summed changes exceeds a threshold, determining an event has occurred.

88. (withdrawn) A method for indicating an event in a video stream, comprising:

detecting the event; and  
displaying the event;  
wherein an indication of an increased amount of the event can be displayed by altering a first icon;  
wherein an indication of a decreased amount of the event can be displayed by altering a second icon;  
wherein the first icon and the second icon can be altered at a faster rate to indicate an increased amount of the event;  
wherein the first icon and the second icon can be altered a faster rate to indicate an increased length of the event;  
wherein the first icon and the second icon can be altered at a slower rate to indicate a decreased amount of the event;  
wherein the first icon and the second icon can be altered at a slower rate to indicate a decreased length of the event; and  
wherein the altering consists of at least one of a following item:

a flashing of the icon;  
a blinking of the icon;  
a brightness of the icon; a color of the icon;  
a contrast of the icon; and an outline of the icon.

89. (withdrawn) A method for indicating an event in a video stream, comprising:  
detecting the event; and  
displaying the event;  
wherein an indication of an increased amount of the event can be displayed by altering an icon at an increased rate; and  
wherein an indication of a decreased amount of the event can be displayed by altering the icon at a decreased rate.

90. (new) A camera adapted to be connected to a packet switching network, the camera being adapted to capture a time series of still frame images in a field of view, the time series of still frame images corresponding respectively to a time series of scenes in the field of view, the camera being adapted to transmit over the packet switching network sequences of data packets, certain of the sequences each including a respective compressed set of digitized pixel data, each compressed set of digitized pixel data representing a respective still frame image, the camera comprising:

a digital encoder adapted to produce digitized pixel data in digital format, the digital encoder being operable to produce a first set of digitized pixel data representing a first still frame image of a first scene, the digital encoder being operable to produce a second set of digitized pixel data representing a second still frame image of a second scene, the first scene preceding the second scene in the field of view;

a memory adapted to store the first set of digitized pixel data;

a difference algorithm embodied in suitable media, the difference algorithm when executed being adapted to produce a set of pixel difference values, the set of pixel difference values being calculated by comparison of digitized pixel data selected from the first set of digitized pixel data with corresponding digitized pixel data selected from the second set of digitized pixel data, a selected set of pixel difference values being compared to at least one threshold value, comparison of the selected set of pixel difference values and the at least one threshold value providing an indicator, the indicator in at least one potential circumstance providing indication of an event;

a compression algorithm embodied in suitable media, the compression algorithm being executable to compress the second set of digitized pixel data only when the indicator provides indication of the event, the compression algorithm when executed being adapted to compress the second set of digitized pixel data to produce a compressed second set of digitized pixel data; and

the camera being adapted to send over the packet switching network in a second sequence of data packets the compressed second set of digitized pixel data only when the indicator provides indication of the event.

91. (new) A camera according to claim 90 and further comprising:

the difference algorithm when executed being adapted to produce a histogram, the histogram summarizing a selected set of pixel difference values;  
the camera being adapted to send over the packet switching network in a sequence of data packets a set of data representing the histogram.

92. (new) A camera according to claim 91 and further comprising:

the histogram including a set of indicator bar values, each indicator bar value corresponding to a respective region of the field of view, each indicator bar value representing a selected set of pixel difference values in the respective region.

93. (new) A camera according to claim 92 and further comprising:

each indicator bar value representing a count of a selected set of pixel difference values each exceeding a threshold value in the respective region.

94. (new) A camera according to claim 90 and further comprising:

at least one comparison value being derived from the selected set of pixel difference values, comparison of the at least one comparison value and the at least one threshold value providing the indicator.

95. (new) A camera according to claim 90 and further comprising:

a processor adapted to drive execution of at least the difference algorithm.

96. (new) A camera according to claim 90 and further comprising:

a memory adapted to store the second set of digitized pixel data.

97. (new) A camera according to claim 90 and further comprising:

the difference algorithm being embodied in media which includes executable software.

98. (new) A camera according to claim 90 and further comprising:

the compression algorithm being embodied in media which includes an application specific integrated circuit.

99. (new) A camera according to claim 90 and further comprising:

the camera being adapted to send over the packet switching network in a sequence of data packets a set of data representing the histogram and the compressed second set of digitized pixel data, such that a recipient monitoring station can display for viewing the histogram, the compressed second set of digitized pixel data.

100. (new) A camera according to claim 90 and further comprising:

a compression algorithm embodied in suitable media, the compression algorithm when executed being adapted initially to compress the first set of digitized pixel data to produce a compressed first set of digitized pixel data;

the camera being adapted initially to send over the packet switching network in a first sequence of data packets the compressed first set of digitized pixel data, the first sequence of data packets when sent over the packet switching network preceding the second sequence of data packets.

101. (new) A camera according to claim 90 and further comprising:

a network interface adapted to transmit over the packet switching network sequences of data packets, the network interface including a network stack adapted to produce data packets.

102. (new) A camera adapted to be connected to a packet switching network, the camera being adapted to capture a time series of still frame images in a field of view, the time series of still frame images corresponding respectively to a time series of scenes in the field of view, the camera being adapted to transmit over the packet switching network sequences of data packets, certain of the sequences each including a respective compressed set of digitized pixel data, each compressed set of digitized pixel data representing a respective still frame image, the camera comprising:

a digital encoder adapted to produce digitized pixel data in digital format, the digital encoder being operable to produce a first set of digitized pixel data representing a first still frame image of a first scene, the digital encoder being operable to produce a second set of digitized pixel data representing a second still frame image of a second scene, the first scene preceding the second scene in the field of view;

memory adapted to store the first set of digitized pixel data and the second set of digitized pixel data;

a processor adapted to drive execution of the difference algorithm;

a difference algorithm embodied in media, the media including executable software, the difference algorithm when executed being adapted to produce a set of pixel difference values, the set of pixel difference values being calculated by comparison of digitized pixel data selected from the first set of digitized pixel data with corresponding digitized pixel data selected from the second set of digitized pixel data, a selected set of pixel difference values being compared to at least one threshold value, comparison of the selected set of pixel difference values and the at least one threshold value providing an indicator, the indicator in at least one circumstance providing indication of an event, the difference algorithm when executed being adapted to produce a histogram, the histogram summarizing a selected set of pixel difference values, the histogram including a set of indicator bar values, each indicator bar value corresponding to a respective region of the field of view, each indicator bar value representing a selected set of pixel difference values in the respective region;

a compression algorithm embodied in at least one application specific integrated circuit, the compression algorithm being executable when the indicator provides indication of the event, the compression algorithm when executed being adapted to compress the second set of digitized pixel data to produce a compressed second set of digitized pixel data; and

the camera being adapted to send over the packet switching network in a second sequence of data packets the compressed second set of digitized pixel data, the camera being adapted to send over the packet switching network in a sequence of data packets a set of data representing the histogram, such that a recipient monitoring station can display for viewing the histogram and the compressed second set of digitized pixel data.

103. (new) A camera according to claim 102 and further comprising:

each indicator bar value representing a count of a selected set of pixel difference values each exceeding a threshold value in the respective region.

104. (new) A camera according to claim 102 and further comprising:

at least one comparison value being derived from the selected set of pixel difference values, comparison of the at least one comparison value and the at least one threshold value providing the indicator.

105. (new) A camera according to claim 102 and further comprising:

a compression algorithm embodied in suitable media, the compression algorithm when executed being adapted initially to compress the first set of digitized pixel data to produce a compressed first set of digitized pixel data;

the camera being adapted initially to send over the packet switching network in a first sequence of data packets the compressed first set of digitized pixel data, the first sequence of data packets when sent over the packet switching network preceding the second sequence of data packets.

106. (new) A camera according to claim 90 and further comprising:

a network interface adapted to transmit over the packet switching network sequences of data packets, the network interface including a network stack adapted to produce data packets.

107. (new) A camera according to claim 106 and further comprising:

a compression algorithm embodied in suitable media, the compression algorithm when executed being adapted to compress the first set of digitized pixel data to produce a compressed first set of digitized pixel data;

the camera being adapted to initially send over the packet switching network in a first sequence of data packets the compressed first set of digitized pixel data, the first sequence of data packets preceding the second sequence of data packets.